

TITLE

OLEFIN POLYMERS AND PROCESSES THEREFOR

Abstract of the Disclosure

Disclosed herein are processes for polymerizing
5 ethylene, acyclic olefins, and/or selected cyclic
olefins, and optionally selected olefinic esters or
carboxylic acids, and other monomers. The
polymerizations are catalyzed by selected transition
metal compounds, and sometimes other co-catalysts.
10 Since some of the polymerizations exhibit some
characteristics of living polymerizations, block
copolymers can be readily made. Many of the polymers
produced are often novel, particularly in regard to
their microstructure, which gives some of them unusual
15 properties. Numerous novel catalysts are disclosed, as
well as some novel processes for making them. The
polymers made are useful as elastomers, molding resins,
in adhesives, etc. Also described herein is the
synthesis of linear α -olefins by the oligomerization of
20 ethylene using as a catalyst system a combination a
nickel compound having a selected α -diimine ligand and
a selected Lewis or Bronsted acid, or by contacting
selected α -diimine nickel complexes with ethylene.

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